

FIG. 1

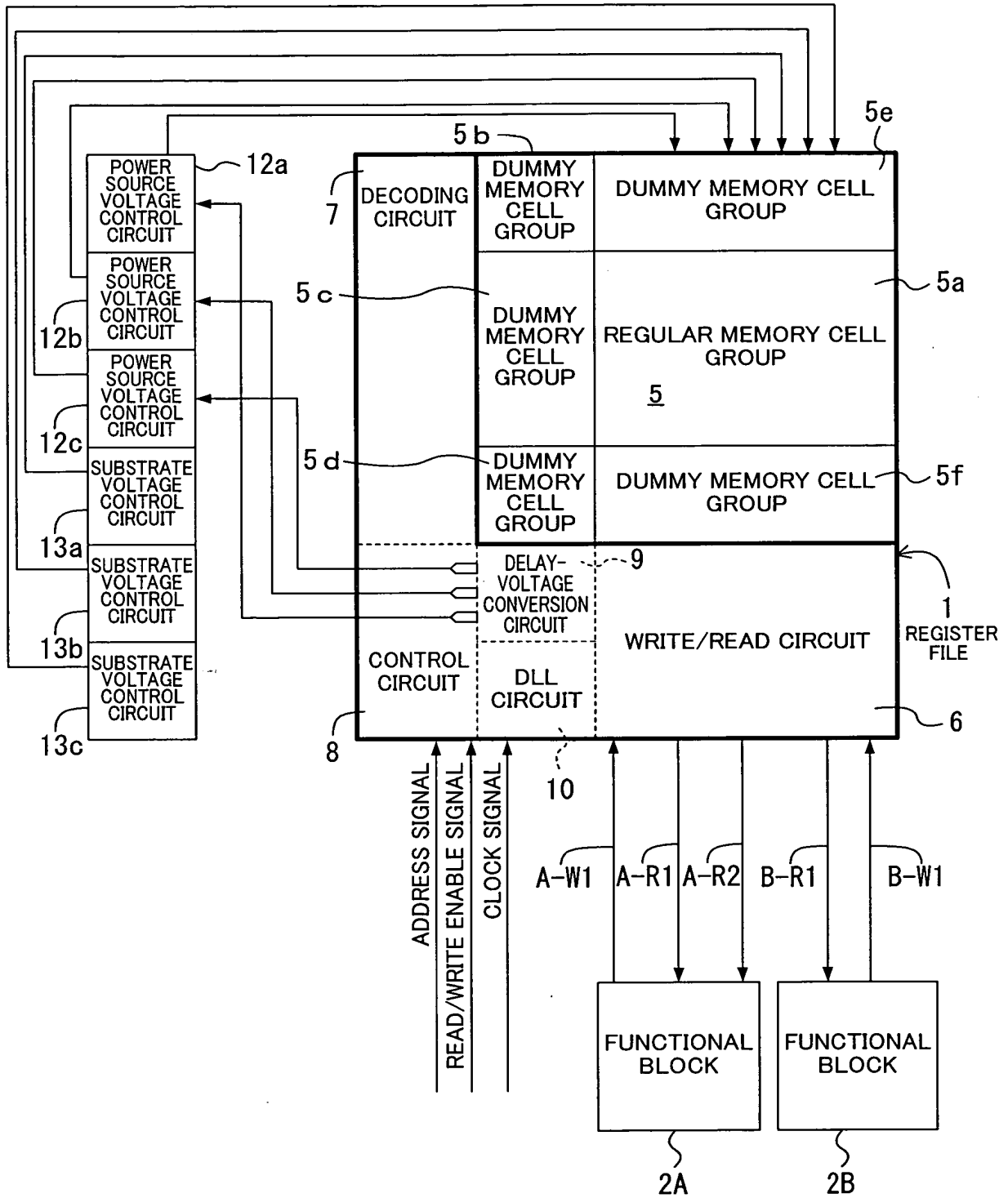


FIG. 3

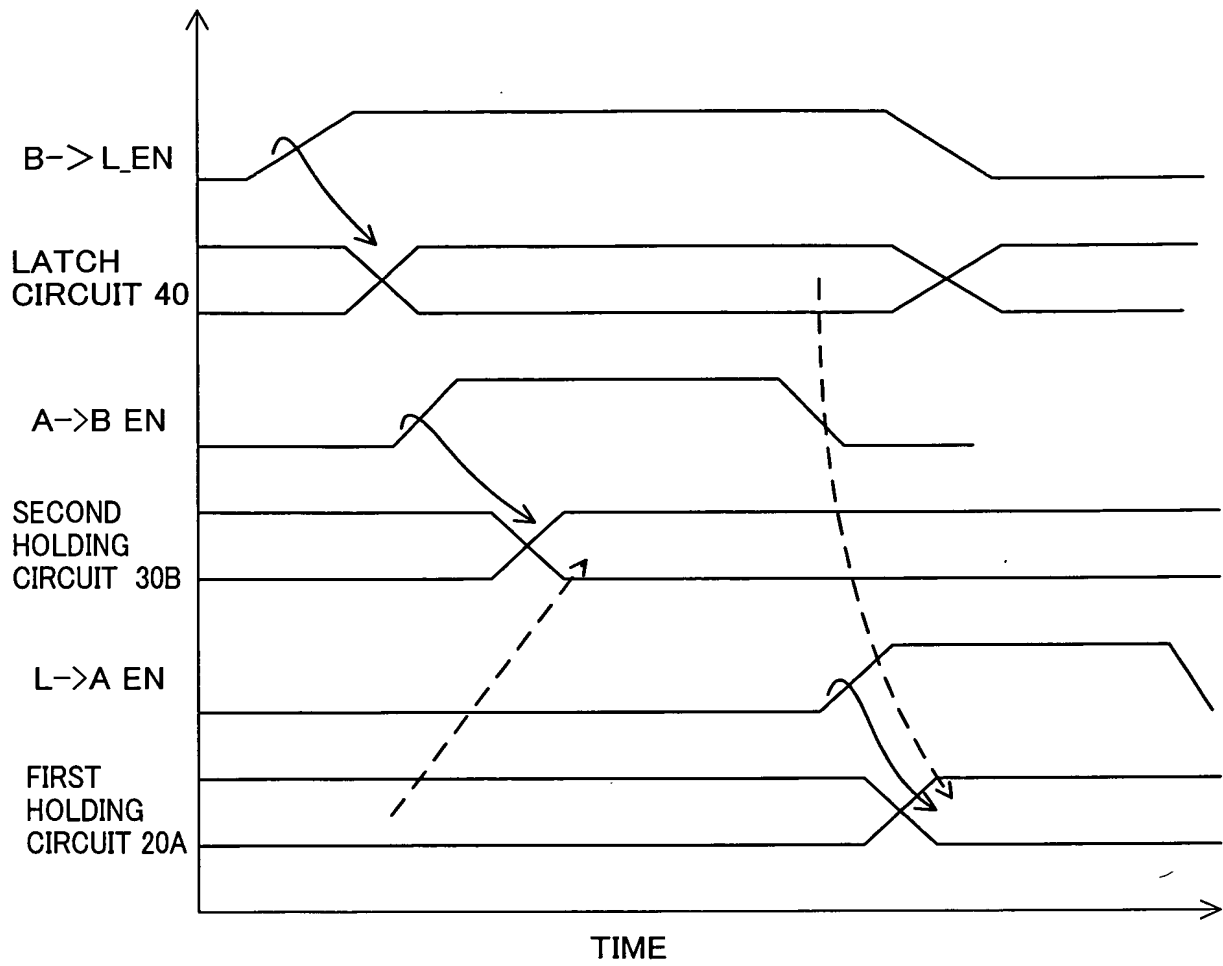


FIG. 4

	ACTIVITY RATE (ACCESS FREQUENCY)	THRESHOLD VOLTAGE	POWER SOURCE VOLTAGE
FIRST WRITE PORT SECTION 21AW	1/32	200mV	1.0V
SECOND WRITE PORT SECTION 31BW	1/1000	400mV	0.8V
FIRST READ PORT SECTION 21AR1	1/32	200mV	1.0V
FIRST READ PORT SECTION 21AR2	1/32	200mV	1.0V
SECOND READ PORT SECTION 31BR	1/1000	400mV	0.8V
FIRST HOLDING CIRCUIT 20A	1/32	200mV	1.0V
FIRST HOLDING CIRCUIT 20B	1/1000	400mV	0.8V
LATCH CIRCUIT 40C	1/10000	500mV	0.75V

13a SUBSTRATE VOLTAGE CONTROL CIRCUIT

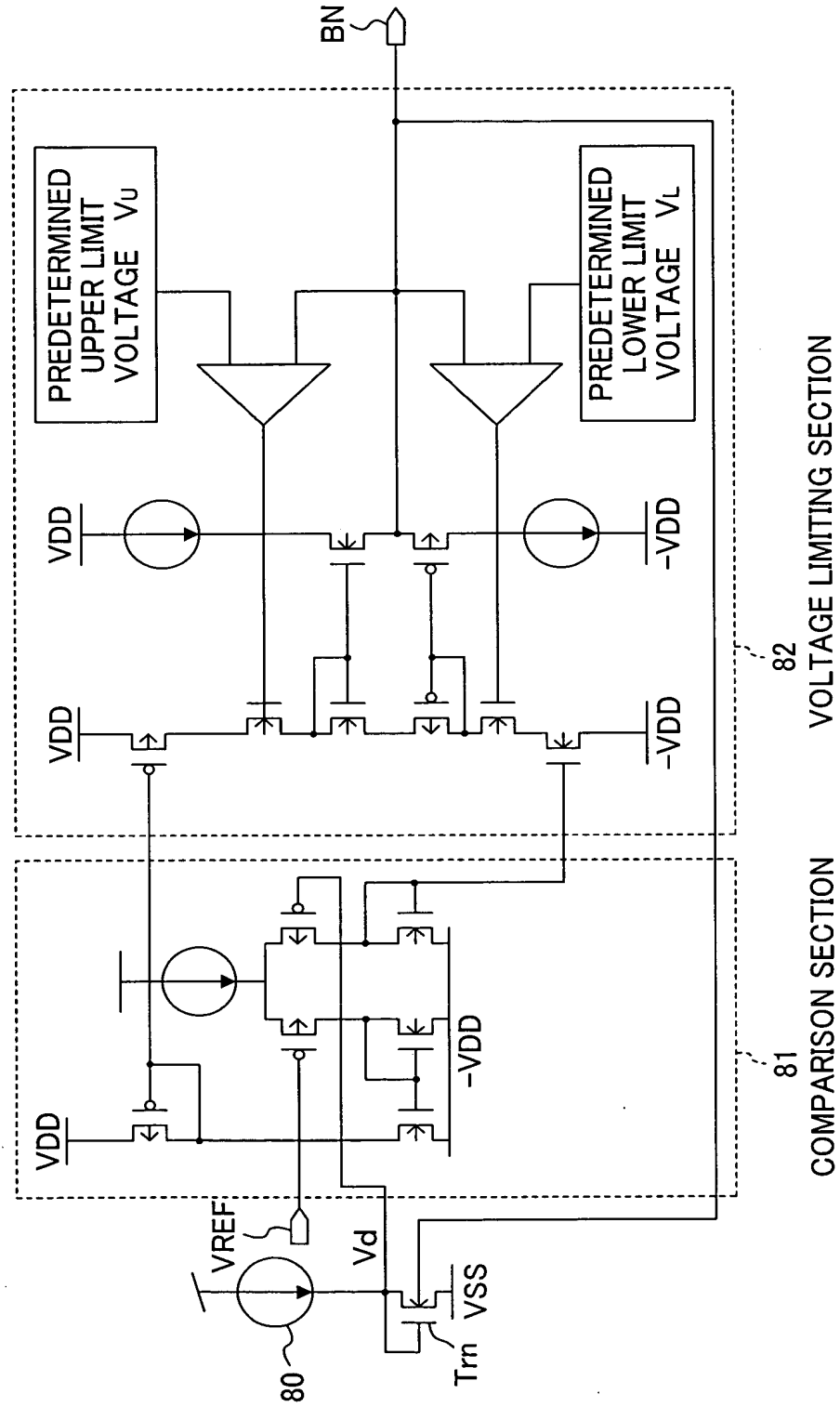
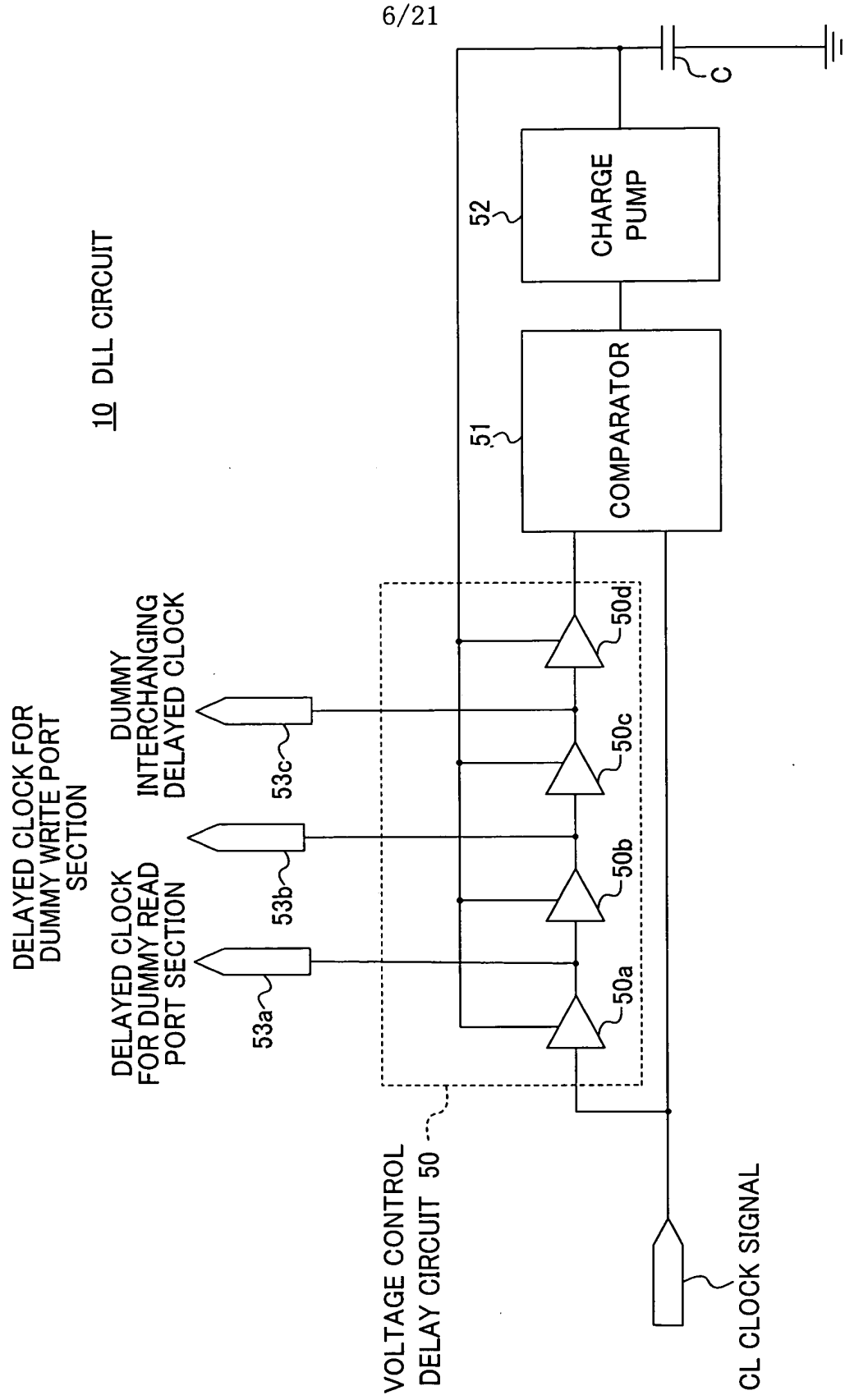


FIG. 6



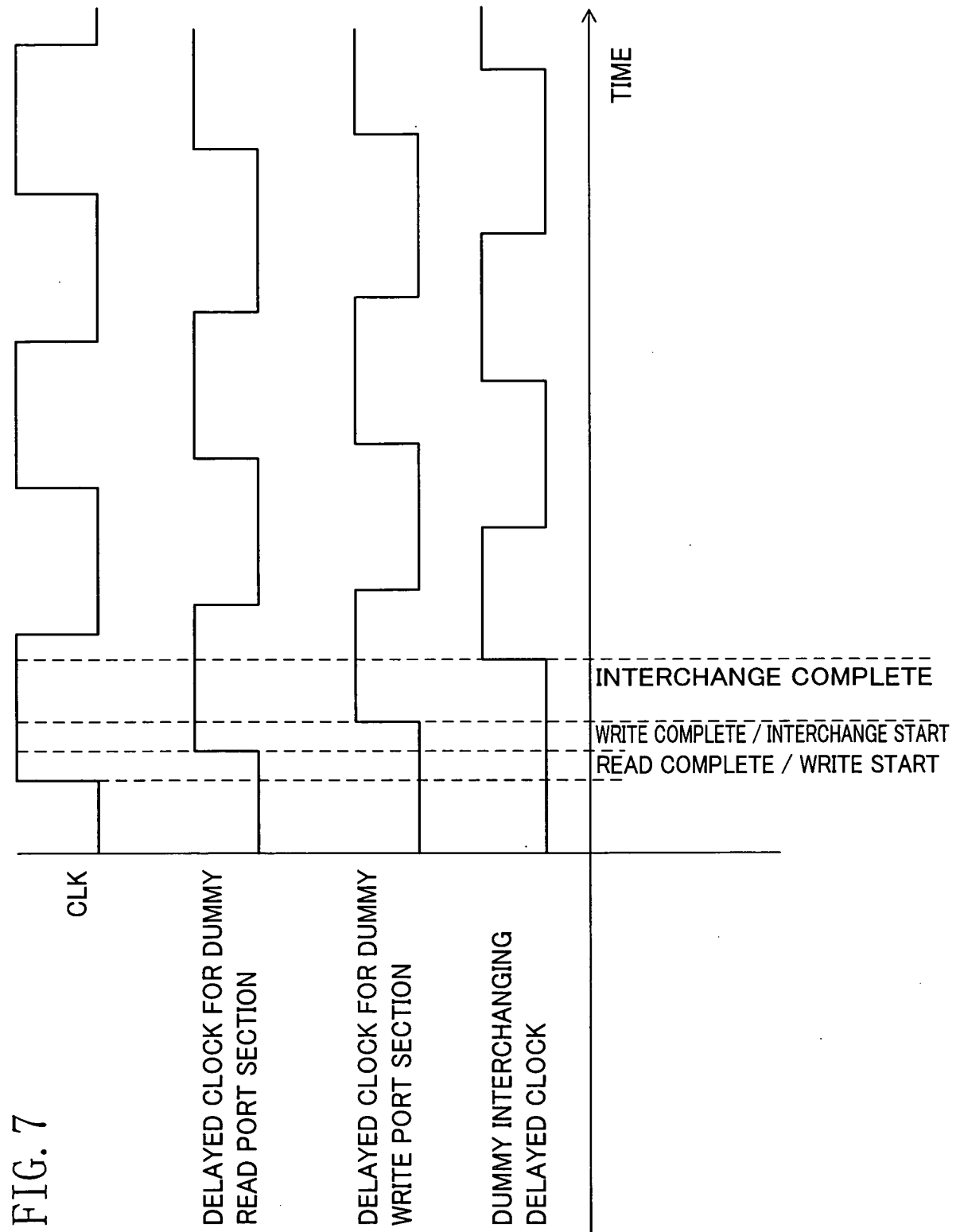


FIG. 8

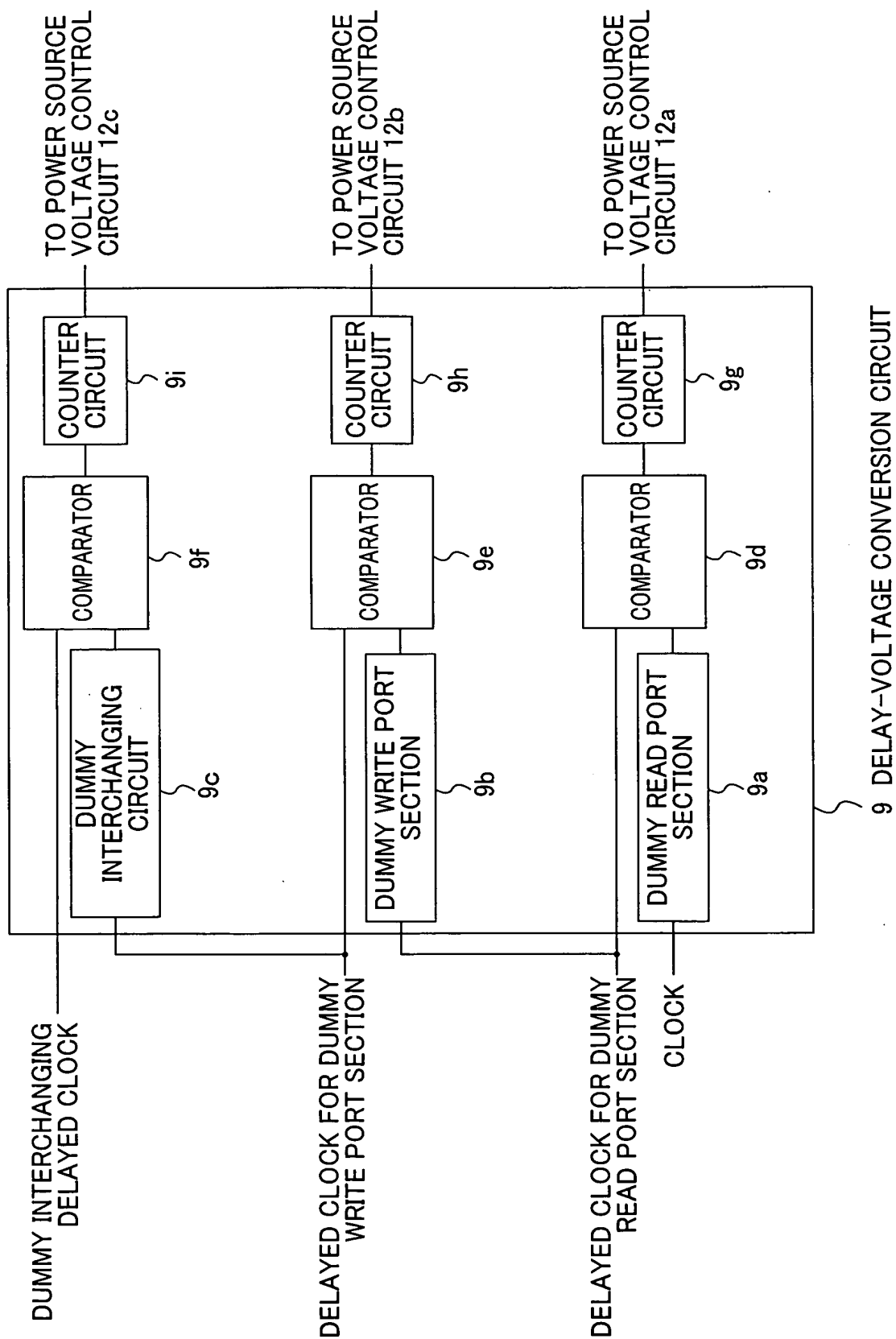


FIG. 9

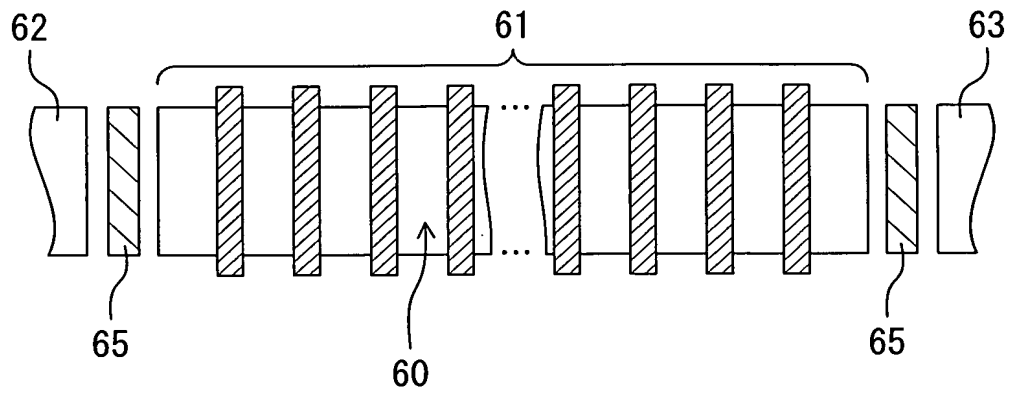


FIG. 10

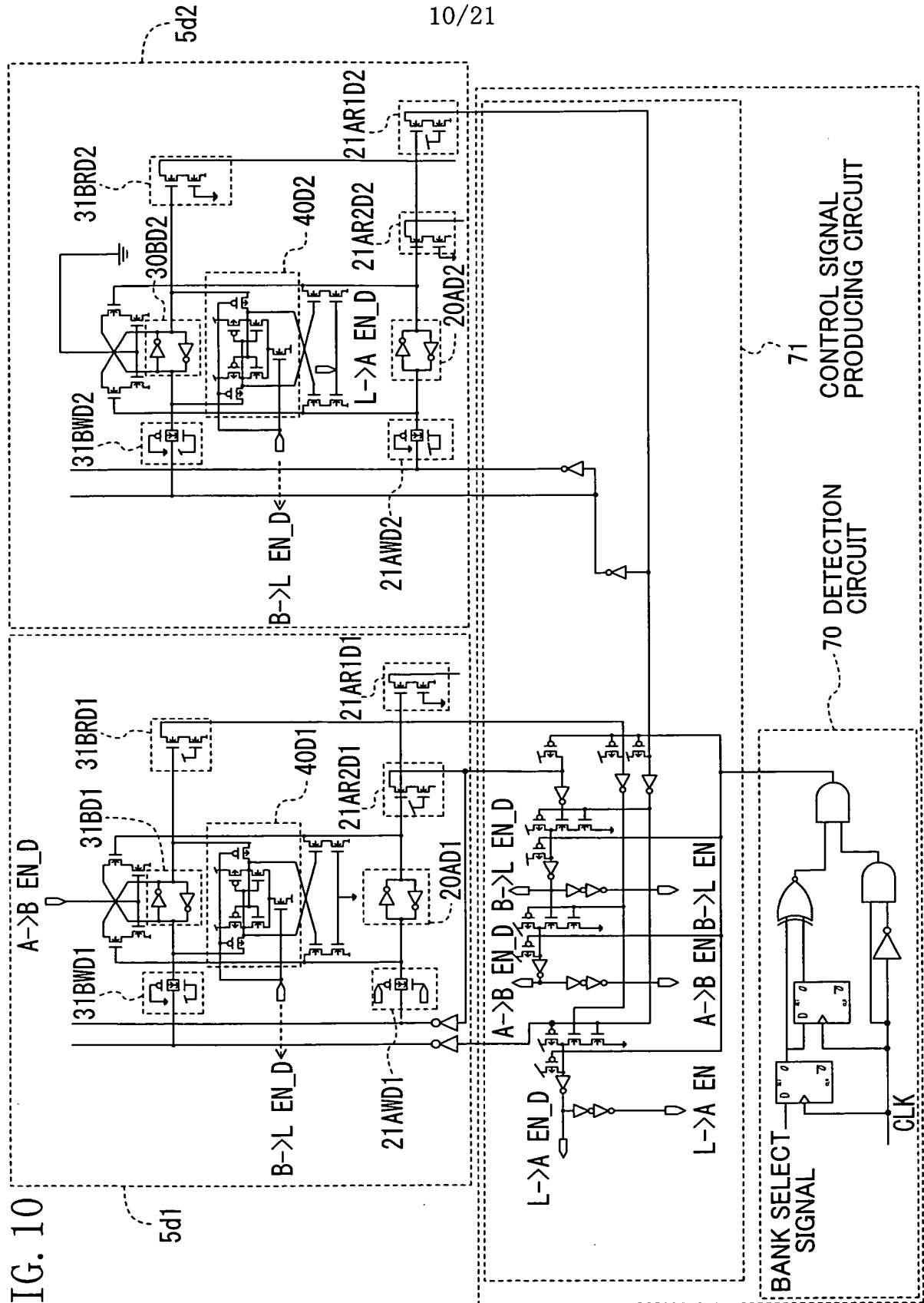
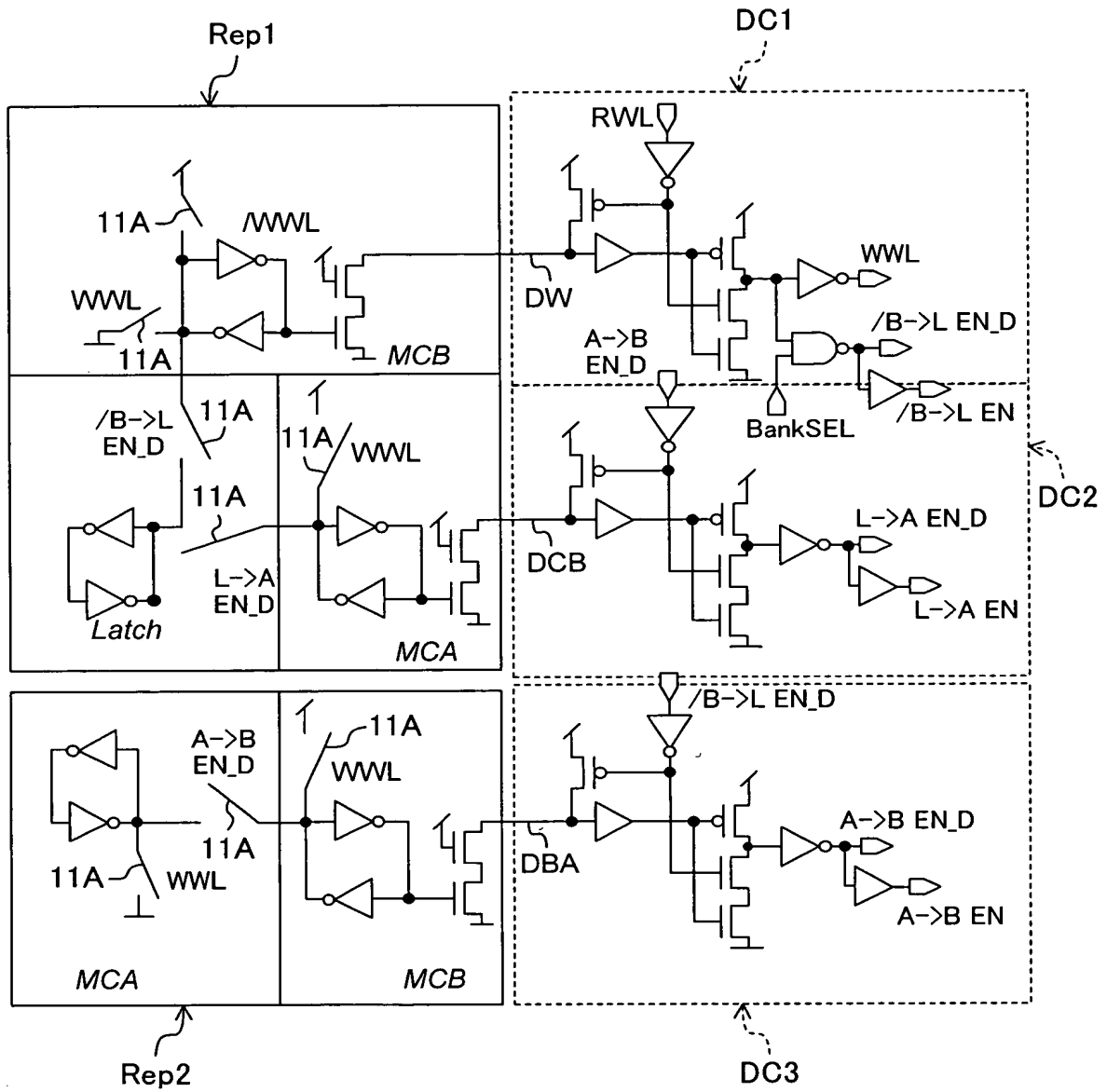


FIG. 11



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FIG. 12

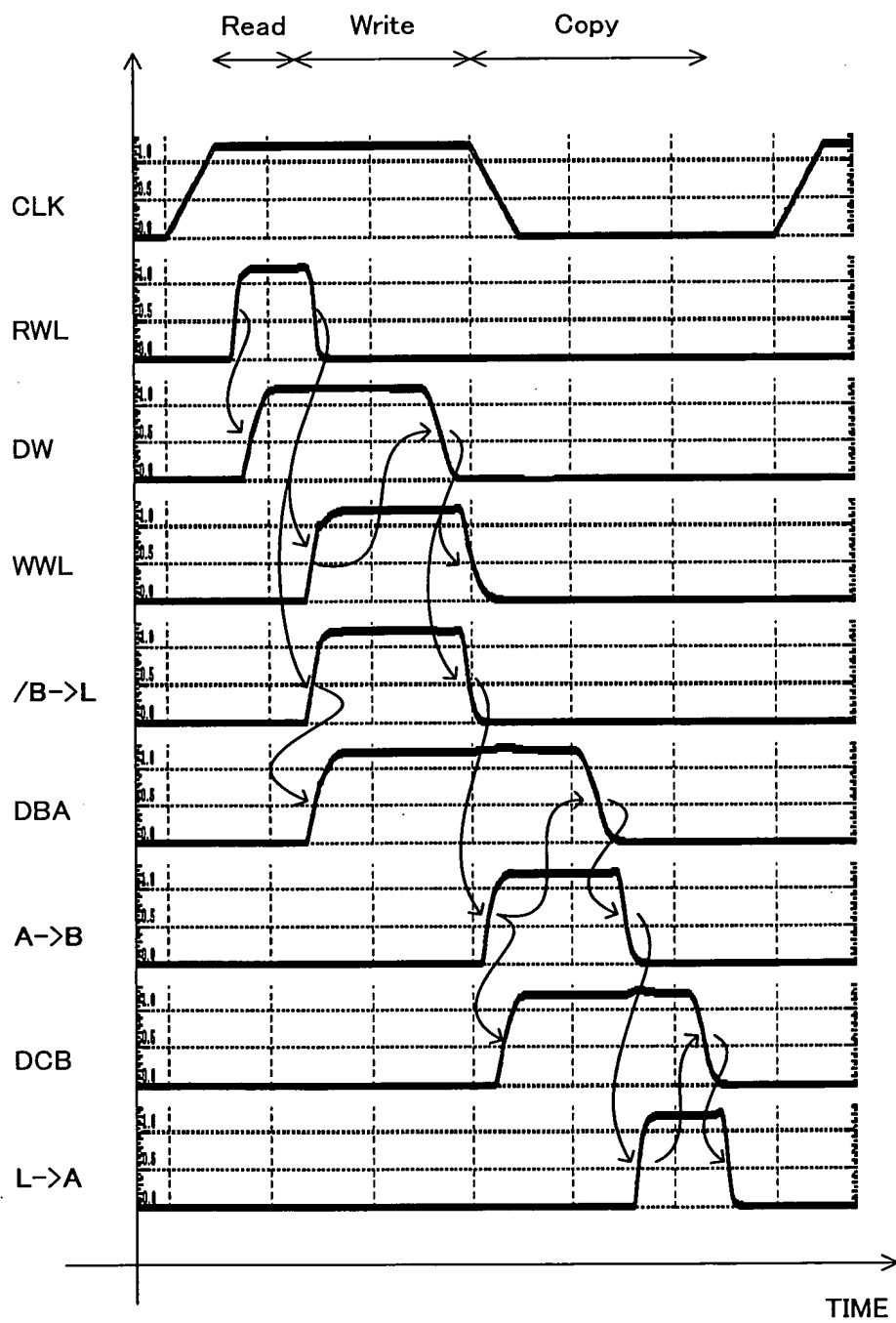


FIG. 13

	ACTIVITY RATE (ACCESS FREQUENCY)	THRESHOLD VOLTAGE	POWER SOURCE VOLTAGE
MCA WRITE PORT	1/32	200mV	0.8V
MCB WRITE PORT	1/1000	400mV	1V
MCA READ PORT	1/32	200mV	0.8V
MCB READ PORT	1/1000	400mV	1V
MCA HOLDING CIRCUIT	1/32	200mV	0.8V
MCB HOLDING CIRCUIT	1/1000	400mV	1V
LATCH CIRCUIT	1/10000	400mV	1V

FIG. 14A

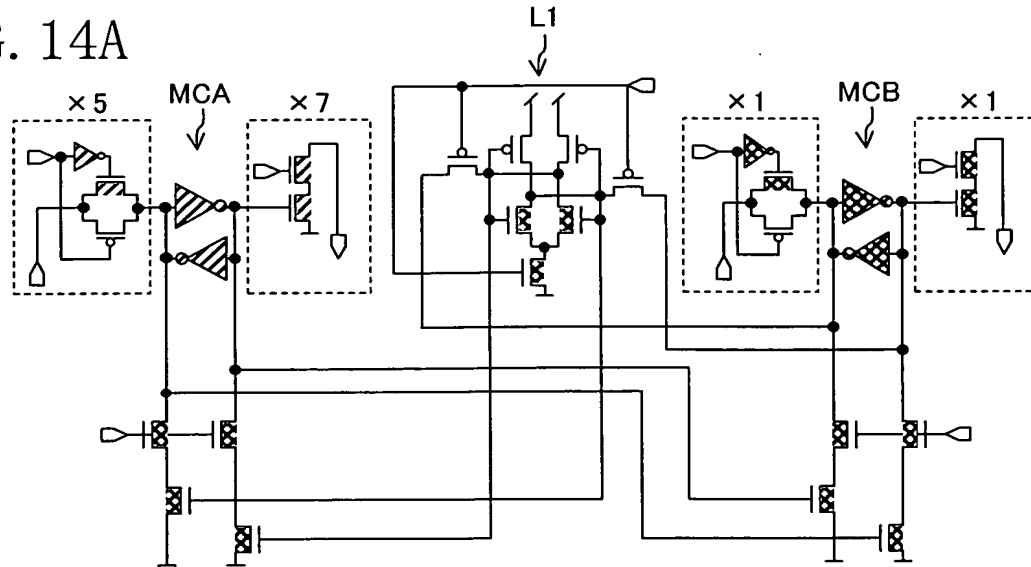


FIG. 14B

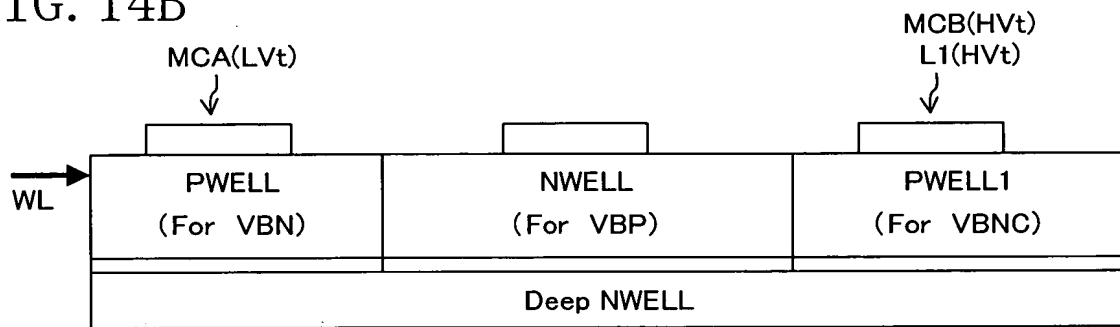


FIG. 14C

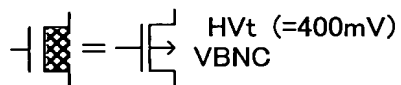


FIG. 14D

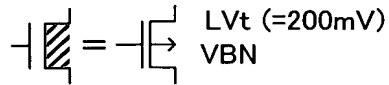


FIG. 14E

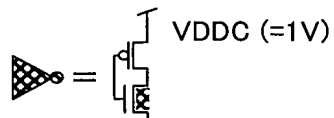


FIG. 14F

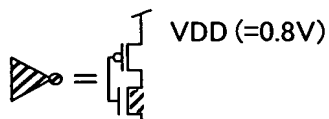


FIG. 15

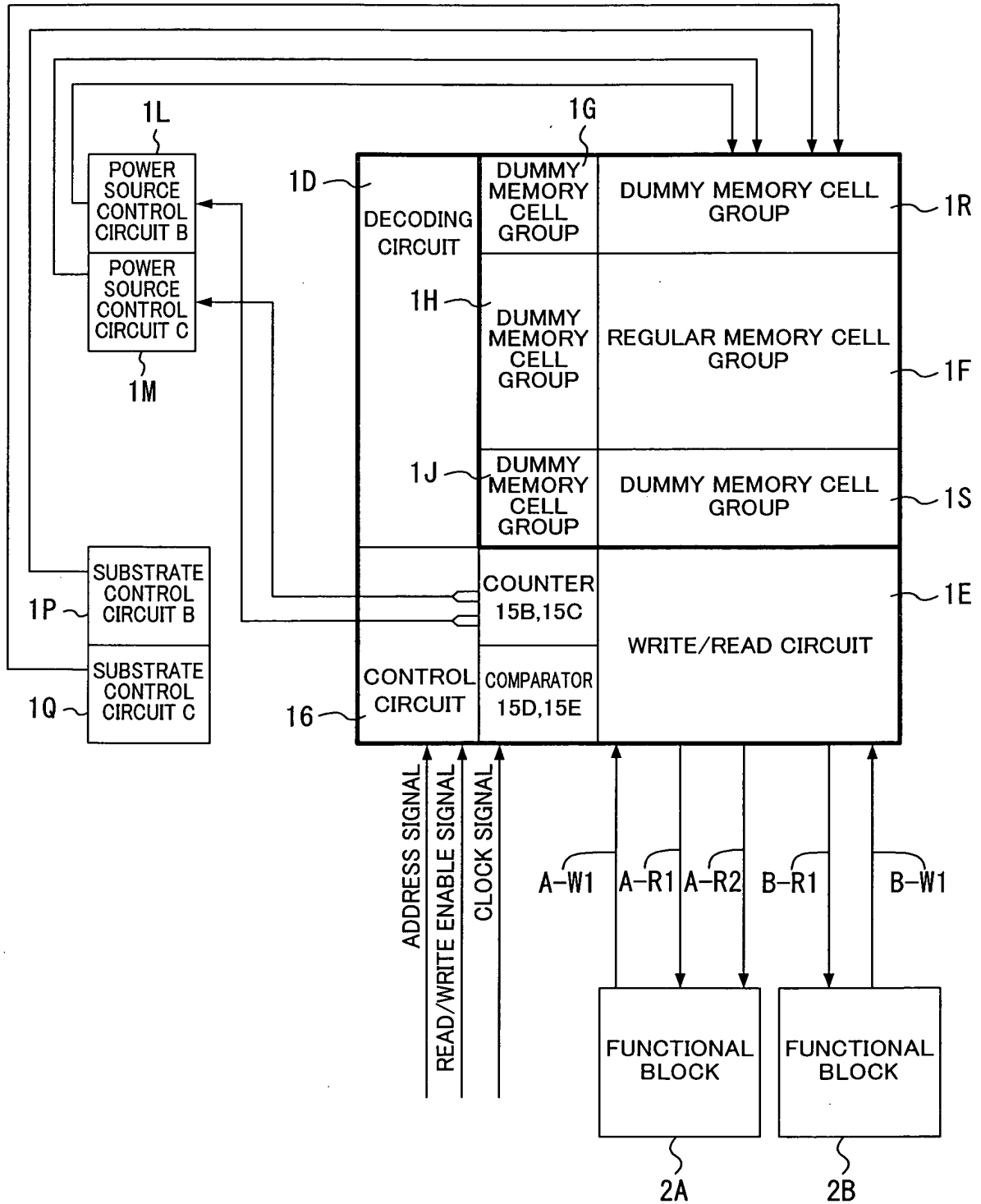


FIG. 16

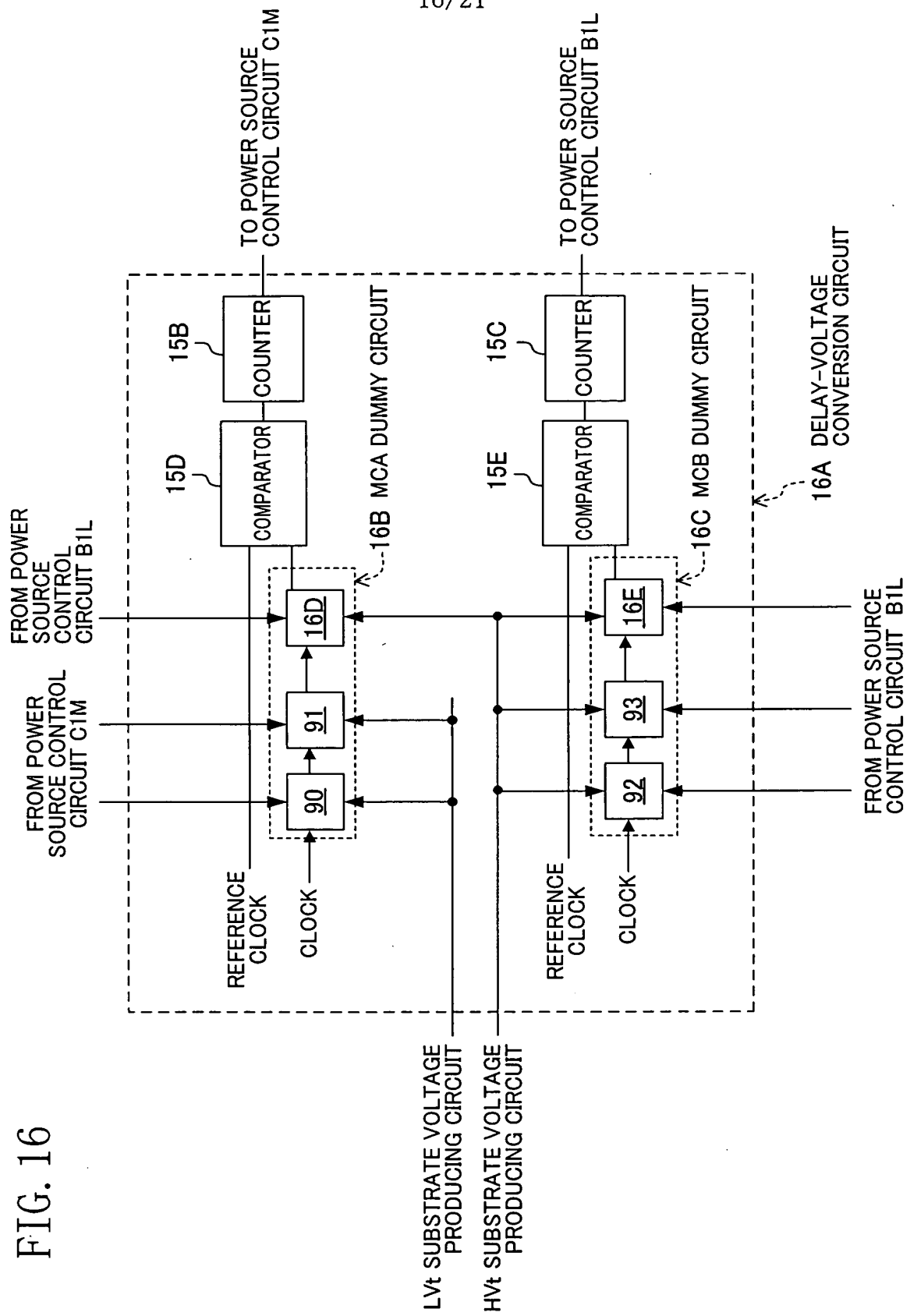


FIG. 17

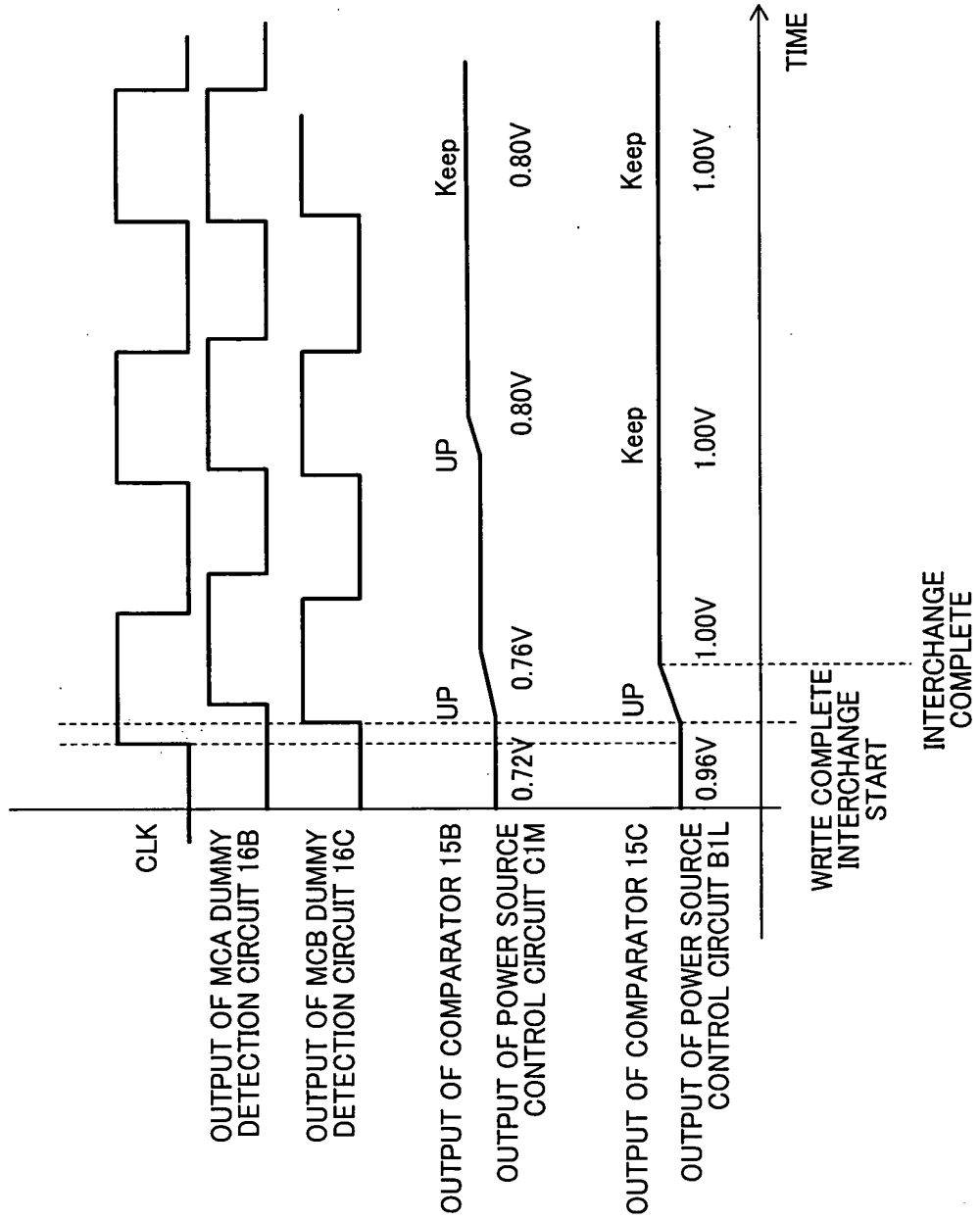


FIG. 18

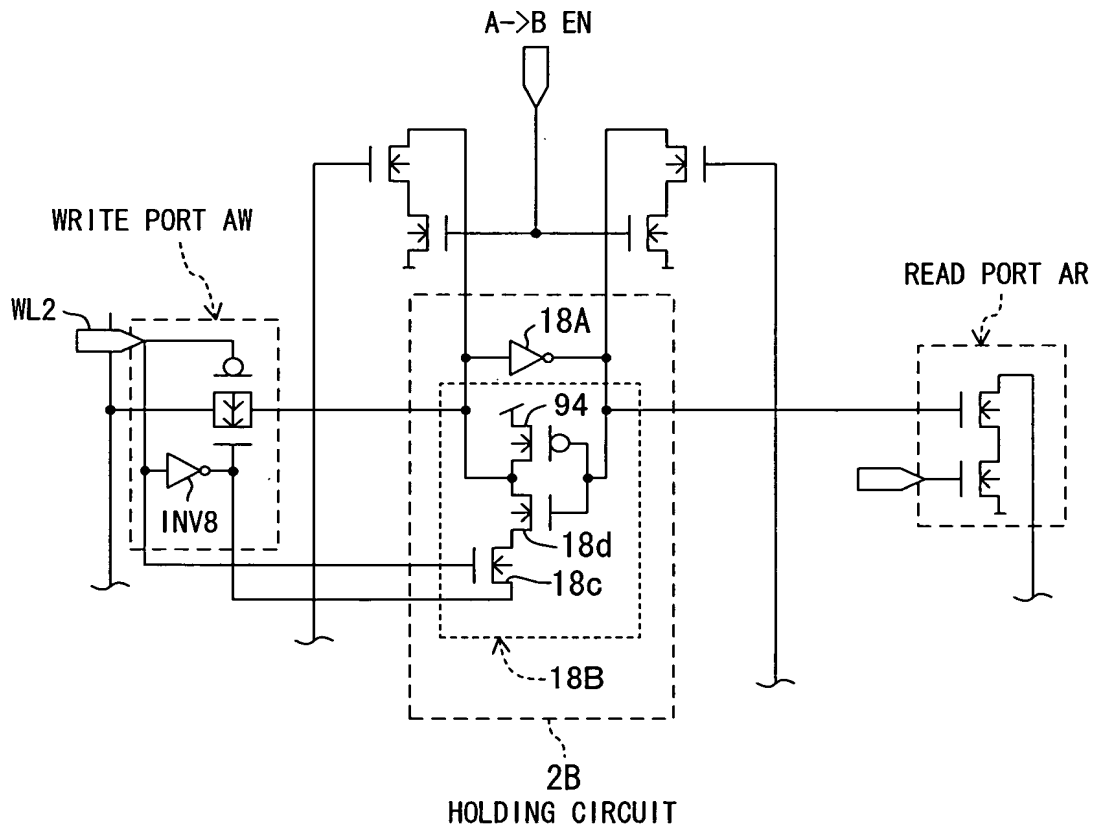


FIG. 19

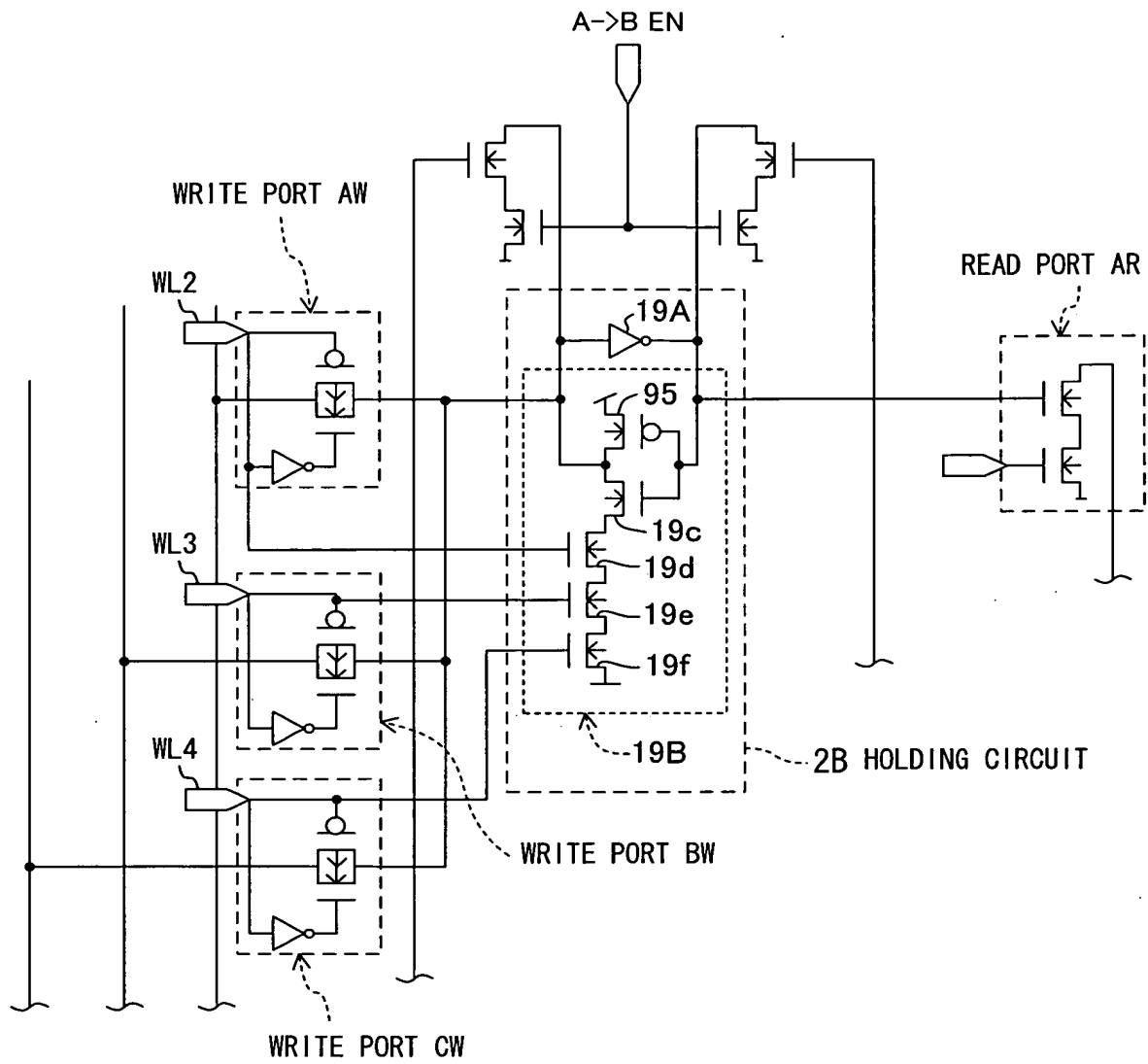


FIG. 20A

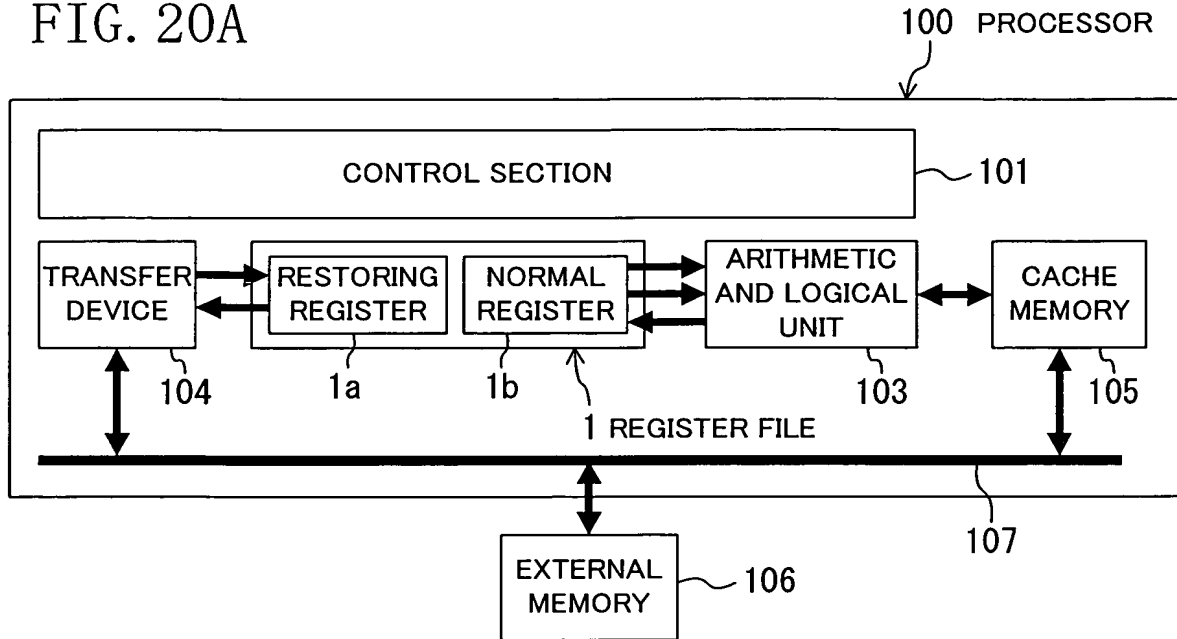


FIG. 20B

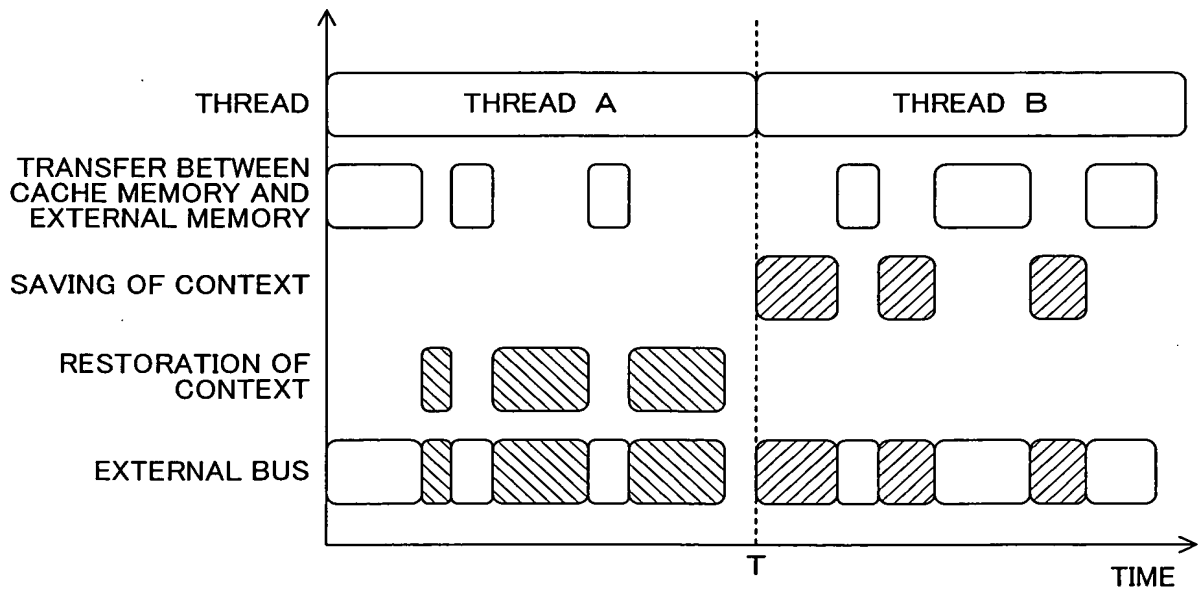


FIG. 21

